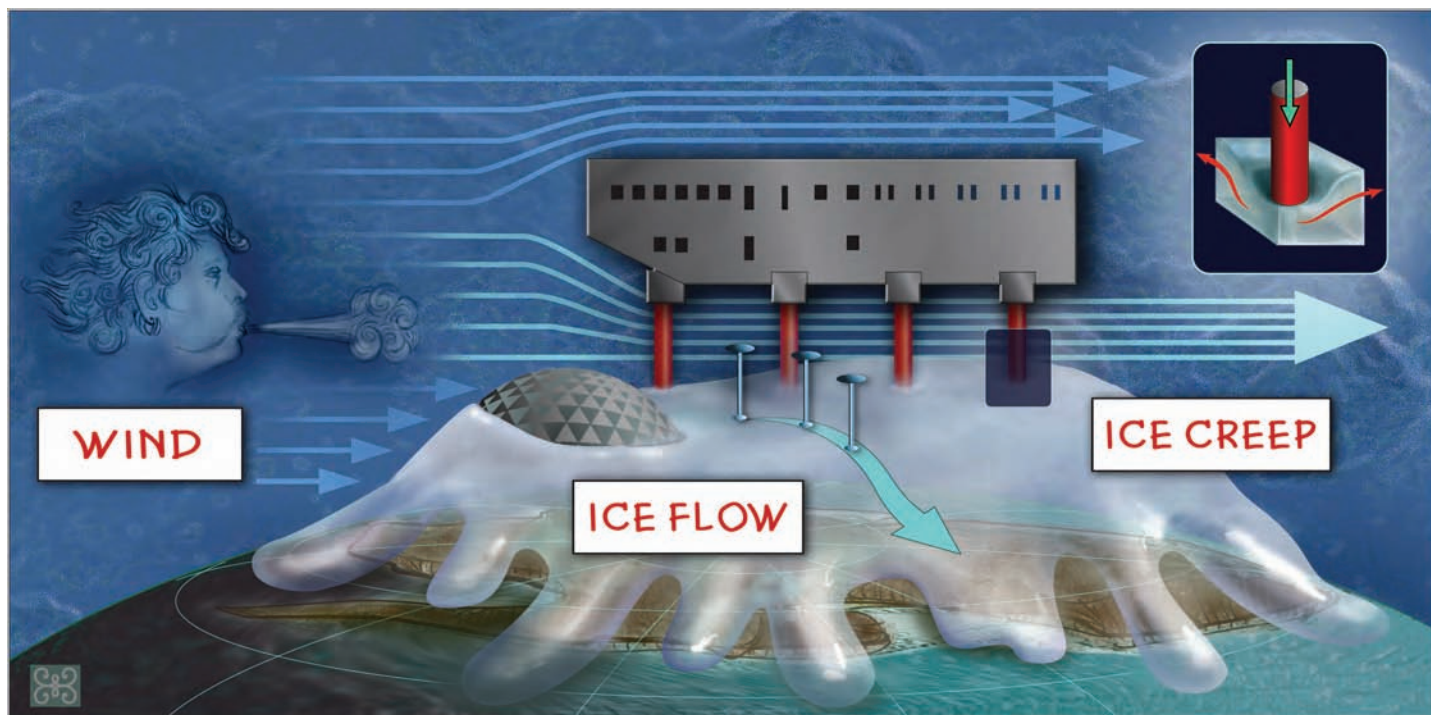


CHALLENGES THAT FACE SOUTH POLE ARCHITECTURE



WIND

- * Constant winds result in snow pile-up on buildings.
- * The new station faces into the wind, and is airfoil-shaped.
- * The airfoil forces air into a compressed space where it accelerates.
- * The fast wind scours out built-up snow.
- * Years later, if snow still builds up, the building can be lifted two more stories on its columns.

ICE FLOW

- * The station sits atop a 2-mile deep layer of ice.
- * Each year, the geographic South Pole is marked.
- * Ice (cold water), slowly drips down to the ocean with gravity.
- * The trail of yearly South Pole markers shows that the ice moves 33'/yr.

ICE CREEP

- * The weight of the building also causes the ice to move locally.
- * Ice compresses and shifts away from sources of pressure.
- * Resulting variable rates of sinking make keeping the building level a challenge.
- * Architectural elements built into the design will help meet that challenge.

